

# **Model C300 NP**

# Non-Pressurized Slush Freezer

**Original Operating Instructions** 

055072NP



# Complete this page for quick reference when service is required:

Taylor Distributor:_			
Information found	l on the data label:		
Model Number:			
Electrical Specs:	Voltage	Cycle	
	Phase		
Maximum Fuse Siz			
Minimum Wire Amp	pacity:		A

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# **Table of Contents**

Section 1	To the Installer	1
	Units	1
	ed Refrigeration Units (Water Cooled Units Only)	1 1
	nections	1
Section 2	To the Operator	3
	or Warranty Disclaimer	3
Section 3	Safety	4
Section 4	Operator Parts Identification	6
	or Assembly	7
Accessorie	S	8
Section 5	Important: To the Operator	9
•	finitions	9
	itch	10
	tal Display	10 10
	I Mode Display	10
	Indicator	15
	dicator	16
	Indicator	16
	n Silencer	16
Product Lig	Jht	16
	'alve	16
Daily Proce	edures	16
Section 6	Operating Procedures	17
Assembly		17
_		21
	xing	
	osing Procedure	25
_	oduct From the Freezing Cylinder	25
		26 26
_	ly	27
	ning	28

Model C300 NP Table of Contents

# **Table of Contents - Page 2**

Section 7	Important: Operator Checklist	29
During Cle	eaning and Sanitizing	29
Troublesh	ooting Bacterial Count	29
Regular M	laintenance Checks	29
Winter Sto	orage	30
Section 8	Troubleshooting Guide	31
Section 9	Parts Replacement Schedule	33
Section 10	Parts List	34
Wiring Dia	agrams	43

Note: Continuing research results in steady improvements; therefore, information in this manual is subject to change without notice.

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055072NP



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Taylor Company 750 N. Blackhawk Blvd. Rockton, IL 61072

Table of Contents Model C300 NP

# Section 1

# To the Installer

The Model C300NP is designed for indoor use only.

DO NOT install the machine in an area where a water jet could be used. Failure to follow this instruction may result in serious electrical shock.

#### **Air Cooled Units**

Air cooled units require a minimum of 3" (76 mm) of air space on the rear and left side to the top of the unit, 0" on the right side, and 12" (305 mm) to the ceiling. This is required to allow for adequate air flow through the condenser(s). Failure to allow adequate clearance can reduce the refrigeration capacity of the freezer and possibly cause permanent damage to the compressor(s).

# Water Cooled Refrigeration Units (Water Cooled Units Only)

On the back of the unit, two additional 3/8" (9.5 mm) F.P.T. water connections for condenser inlet and outlet have been provided for easy hook-up. 3/8" (9.5 mm) inside diameter water lines should be connected to the machine. Flexible lines are recommended if local codes permit. Failure to use adequate size water lines may cause the unit to go on high head pressure and shut down.

Depending on local water conditions, it may be advisable to install a water strainer to prevent foreign substances from clogging the automatic water valve.

DO NOT INSTALL A HAND SHUT-OFF VALVE ON THE "OUT" LINE! Water cooled units are counter flow and the water should flow in this order: First through the automatic water valve. Second, through the inlet located at the bottom of the condenser. Third, through the outlet fitting located at the top of the condenser to an open trap drain.

**IMPORTANT:** Water pressures are pre-set at the factory. **Do not adjust the water pressure.** Improper water adjustments may cause operation discrepancies.

#### **Water Connections**

An adequate cold water supply must be provided with a hand shut-off valve. On the back of the unit, a 3/8" (9.5 mm) male flare water connection has been provided for easy hook-up. A flexible line is recommended, if local codes permit. A minimum of 25 psi water pressure is required to avoid having the unit cut out the low water pressure switch. A booster pump must be provided if this pressure is not available. It is always a good practice to have a filter system to improve the quality of the water and to avoid clogging the operating components.

**Note:** Water lines beyond 200 ft. (61 m) require 1/2" (13 mm) water lines.



INSTALL POTABLE WATER CONNECTION WITH ADEQUATE BACK-FLOW PROTECTION TO COMPLY WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES.

It is always a good practice to have a filter system to improve the quality of the water and to avoid clogging the operating components.

**IMPORTANT:** The water filter (064422-SER) must be thoroughly flushed with water before connecting it to the machine. This removes any loose particles present from the manufacture of the filter that could clog the flow control. To flush the filter, connect the inlet end of the filter to the water supply. Position the outlet end of the filter over an empty pail. Open the water supply. Allow water to flow through the filter until the water exiting the filter is clear. Close the water supply. Attach the outlet end of the filter to the machine. Reopen the water supply.

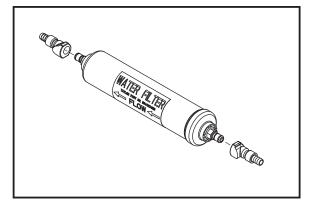


Figure 1

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#### **Electrical Connections**

Each unit requires one power supply for each data label on the unit. Check the data label(s) on the freezer for branch circuit overcurrent protection or fuse, circuit ampacity, and other electrical specifications. Refer to the wiring diagram provided inside of the control box for proper power connections.

In the United States, this equipment is intended to be installed in accordance with the National Electrical Code (NEC), ANSI/NFPA 70-1987. The purpose of the NEC code is the practical safeguarding of persons and property from hazards arising from the use of electricity. This code contains provisions considered necessary for safety. Compliance therewith and proper maintenance will result in an installation essentially free from hazard!

In all other areas of the world, equipment should be installed in accordance with the existing local codes. Please contact your local authorities.

Stationary appliances which are not equipped with a power cord and a plug or other device to disconnect the appliance from the power source must have an all-pole disconnecting device with a contact gap of at least 3 mm installed in the external installation.

CAUTION: THIS EQUIPMENT MUST BE PROPERLY GROUNDED! FAILURE TO DO SO CAN RESULT IN SEVERE PERSONAL INJURY FROM ELECTRICAL SHOCK!

Beater rotation must be clockwise as viewed looking into the freezing cylinder.

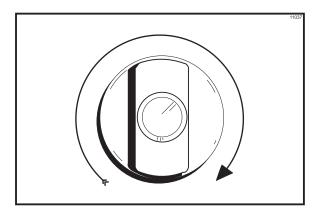


Figure 2

The following procedures should be performed by a trained service technician:

To correct rotation on a single-phase unit, change the leads inside the beater motor. Follow the diagram printed on the motor. (**Note:** Three-phase units have single-phase motors.)

# Section 2

# To the Operator

The freezer you have purchased has been carefully engineered and manufactured to give you dependable operation.

The Model C300NP, when properly operated and cared for, will produce a consistent quality product. Like all mechanical products, this machine will require cleaning and scheduled maintenance. A minimum amount of care and attention is necessary if the operating procedures outlined in this manual are followed closely.

This Operator's Manual should be read before operating or performing any maintenance on your equipment.

Your freezer will NOT eventually compensate and correct for any errors during the set-up or filling operations. Thus, the initial assembly and priming procedures are of extreme importance. It is strongly recommended that all personnel responsible for the equipment's operation study these procedures together in order to be properly trained and to make sure that no misunderstandings exist.

In the event you should require technical assistance, please contact your local authorized Taylor Distributor.

Warranty is valid only if the parts are authorized Taylor parts, purchased from an authorized Taylor Distributor, and the required service work is provided by an authorized Taylor service technician. Taylor reserves the right to deny warranty claims on equipment or parts if non-approved parts or refrigerant were installed in the machine, system modifications were performed beyond factory recommendations, or it is determined that the failure was caused by neglect or abuse.

If the crossed out wheeled bin symbol is affixed to this product, it signifies that this product is compliant with the EU Directive as well as other similar legislation in effect after August 13, 2005. Therefore, it must be collected separately after its use is completed, and cannot be disposed as unsorted municipal waste.

The user is responsible for returning the product to the appropriate collection facility, as specified by your local code.

For additional information regarding applicable local laws, please contact the municipal facility and/or local distributor.

### **Compressor Warranty Disclaimer**

The refrigeration compressor(s) on this machine are warranted for the term indicated on the warranty card accompanying this machine. However, due to the Montreal Protocol and the U.S. Clean Air Act Amendments of 1990, many new refrigerants are being tested and developed, thus seeking their way into the service industry. Some of these new refrigerants are being advertised as drop-in replacements for numerous applications. It should be noted that, in the event of ordinary service to this machine's refrigeration system, only the refrigerant specified on the affixed data label should be **used**. The unauthorized use of alternate refrigerants will void your compressor warranty. It will be the owner's responsibility to make this fact known to any technician he employs.

It should also be noted that Taylor does not warrant the refrigerant used in its equipment. For example, if the refrigerant is lost during the course of ordinary service to this machine, Taylor has no obligation to either supply or provide its replacement either at billable or unbillable terms. Taylor does have the obligation to recommend a suitable replacement if the original refrigerant is banned, obsoleted, or no longer available during the five year warranty of the compressor.

Taylor will continue to monitor the industry and test new alternates as they are being developed. Should a new alternate prove, through our testing, that it would be accepted as a drop-in replacement, then the above disclaimer would become null and void. To find out the current status of an alternate refrigerant as it relates to your compressor warranty, call the local Taylor Distributor or the Taylor Factory. Be prepared to provide the Model/Serial Number of the unit in question.

Section 3 Safety

We, at Taylor Company, are concerned about the safety of the operator when he or she comes in contact with the freezer and its parts. Taylor has gone to extreme efforts to design and manufacture built-in safety features to protect both the operator and the service technician. As an example, warning labels have been attached to the freezer to further point out safety precautions.

IMPORTANT - Failure to adhere to the following safety precautions may result in severe personal injury or death. Failure to comply with these warnings may damage the machine and its components. Component damage will result in part replacement expense and service repair expense.

**DO NOT** operate the freezer without reading this Operator Manual. Failure to follow this instruction may result in equipment damage, poor freezer performance, health hazards, or personal injury.

Per IEC 60335-1 and its part 2 standards, "This appliance is to be used only by trained personnel. It is not intended for use by children or people with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless given supervision or instruction concerning the use of the appliance by a person responsible for their safety."

This unit is provided with an equipotential grounding lug that is to be properly attached to the rear of the frame by the authorized installer. The installation location is marked by the equipotential bonding symbol (5021 of IEC 60417-1) on both the removable panel and the equipment's frame.

**DO NOT** use a water jet to clean or rinse the freezer. Failure to follow these instructions may result in serious electrical shock.



- **DO NOT** operate the freezer unless it is properly grounded.
- DO NOT operate the freezer with larger fuses than specified on the freezer data label.
- All repairs must be performed by an authorized Taylor service technician. The main power supplies to the machine must be disconnected prior to performing any repairs.
- Cord Connected Units: Only Taylor authorized service technicians may install a plug on this unit.
- Stationary appliances which are not equipped with a power cord and a plug or another device to disconnect the appliance from the power source, must have an all-pole disconnecting device with a contact gap of at least 3 mm installed in the external installation.
- Appliances that are permanently connected to fixed wiring and for which leakage currents may exceed 10 mA, particularly when disconnected or not used for long periods, or during initial installation, shall have protective devices, such as a GFI, to protect against the leakage of current, installed by authorized personnel to the local codes.
- Supply cords used with this unit shall be oil-resistant, sheathed, flexible cable not lighter than ordinary polychloroprene or other equivalent synthetic elastomer-sheathed cord (Code designation 60245 IEC 57) installed with the proper cord anchorage to relieve conductors from strain, including twisting, at the terminals and protect the insulation of the conductors from abrasion.

Failure to follow these instructions may result in electrocution. Contact your local authorized Taylor Distributor for service.

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in operation. The control switch must be in the OFF position until the unit is completely assembled. No part should ever be removed from the machine while it is in operation. No parts should be removed until the control switch has been turned to the OFF position. Failure to follow this instruction may result in severe personal injury from hazardous moving parts or from the impact of propelled parts.



- DO NOT allow untrained personnel to operate this machine.
- DO NOT operate the freezer unless all service panels and access doors are restrained with screws.
- DO NOT remove any internal operating parts (example: freezer door, beater, scraper blades, etc.) unless all control switches are in the OFF position.

Failure to follow these instructions may result in severe personal injury from hazardous moving parts.

This unit has many sharp edges that can cause severe injuries.

- DO NOT put objects or fingers in the door spout. This may contaminate the product and cause severe personal injury from blade contact.
- USE EXTREME CAUTION when removing the beater asssembly. The scraper blades are very sharp.

This freezer must be placed on a level surface. Failure to comply may result in personal injury or equipment damage.

Cleaning and sanitizing schedules are governed by your state or local regulatory agencies and must be followed accordingly. Please refer to the cleaning section of this manual for the proper procedure to clean this unit.

**DO NOT** obstruct air intake and discharge openings: Air cooled units require a minimum of 3" (76 mm) of air space on the rear and left side to the top of the unit, 0" on the right side, and a minimum of 12" (305 mm) air clearance to the ceiling. This is required to allow for adequate air flow through the condenser(s). Failure to follow this instruction may cause poor freezer performance and damage to the machine.

This freezer is designed to operate indoors, under normal ambient temperatures of 70°-75°F (21°-24°C). The freezer has successfully performed in high ambient temperatures of 104°F (40°C) at reduced capacities.

**NOISE LEVEL:** Airborne noise emission does not exceed 78 dB(A) when measured at a distance of 1.0 meter from the surface of the machine and at a height of 1.6 meters from the floor.

# **Section 4**

# **Operator Parts Identification**

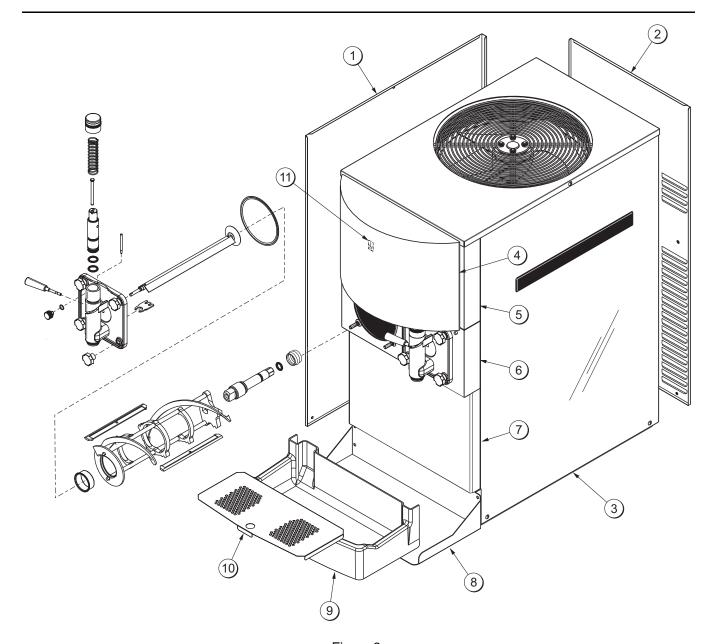


Figure 3

ITEM	DESCRIPTION	PART NO.
1	PANEL-SIDE-LEFT	054676
2	PANEL-REAR	054672
3	PANEL-SIDE-RIGHT	054671
4	DISPLAY-LIGHTED	054683-27
5	PANEL-FRONT-UPPER	054669
6	PANEL-FRONT-SHELL	054668

ITEM	DESCRIPTION	PART NO.
7	PANEL-FRONT-LOWER	054670
8	SHELF-DRIP TRAY	057938
9	TRAY-DRIP	057738
10	SHIELD-SPLASH	057939
11	SWITCH-ROCKER-OFF-ON	078418

# **Beater Door Assembly**

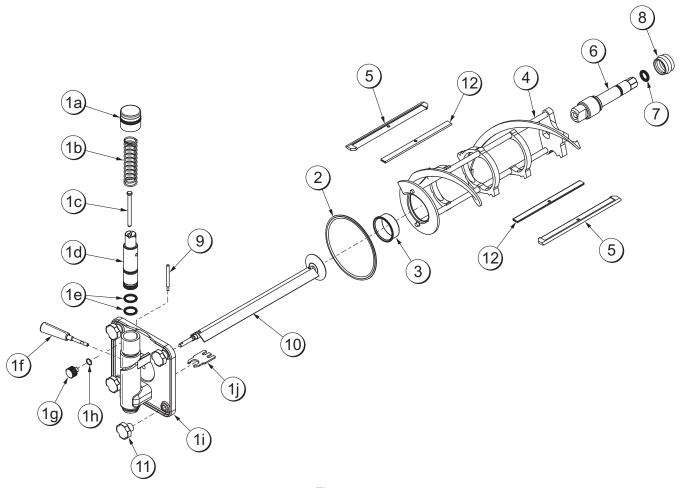


Figure 4

ITEM	DESCRIPTION	PART NO.
1	DOOR ASLUSH-SLFCLOSE- ICE BUSTER (COMPLETE)	X57323 (1a-1j)
1a	CAP ASPRING RETAINER	X30591
1b	SPRING-COMP.970X.082X3.87	030344
1c	PIN-VALVE HANDLE	031974
1d	VALVE-DRAW *SLUSH*SLFCL	047734-SP
1e	O-RING-1"OD X .139W	032504
1f	HANDLE ADRAW-SLUSH-BLK	X47384
1g	PLUG-PRIME*STNLS	050405
1h	O-RING563 OD X .070W-#013	043758
1i	DOOR APARTIAL-SLUSH	X57324-SER
1j	BUSTER-ICE	047735

ITEM	DESCRIPTION	PART NO.
2	GASKET-DOOR 5.109"ID	014030
3	BEARING-FRONT	013116
4	BEATER A7QT-1 PIN	X46233
5	BLADE-SCRAPER-PLASTIC 9-13/16L	046237
6	SHAFT-BEATER	036412
7	O-RING-7/8 OD X .139W	025307
8	SEAL-DRIVE SHAFT	032560
9	ARM-BAFFLE	047729
10	BAFFLE ASSEMBLY	X47731
11	NUT-STUD	043666
12	CLIP-SCRAPER BLADE 8.75"	046238

# **Accessories**

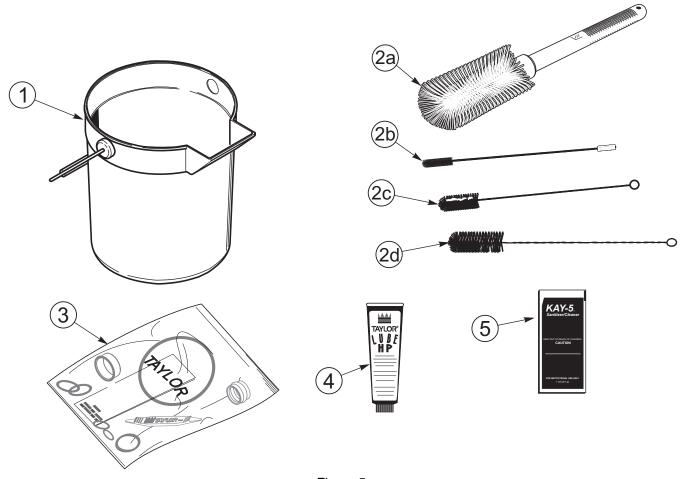


Figure 5

ITEM	DESCRIPTION	PART NO.
1	PAIL-MIX 10 QT	013163
2a	BRUSH-MIX PUMP BODY-3"X7"	023316
2b	BRUSH-DOUBLE ENDED	013072
2c	BRUSH-REAR BRG 1"DX2"L	013071

ITEM	DESCRIPTION	PART NO.
2d	BRUSH-DRAW VALVE 1-1/2"OD	014753
3	KIT ATUNE UP	X56829
4	LUBRICANT-TAYLOR HI PERF	048232
5	SANITIZER KAY-5 125 PACKETS	041082

\*ITEMS 2a-2d ARE INCLUDED IN BRUSH A.-PACKAGE, PART NO. X64275

# **Section 5**

# **Important: To the Operator**

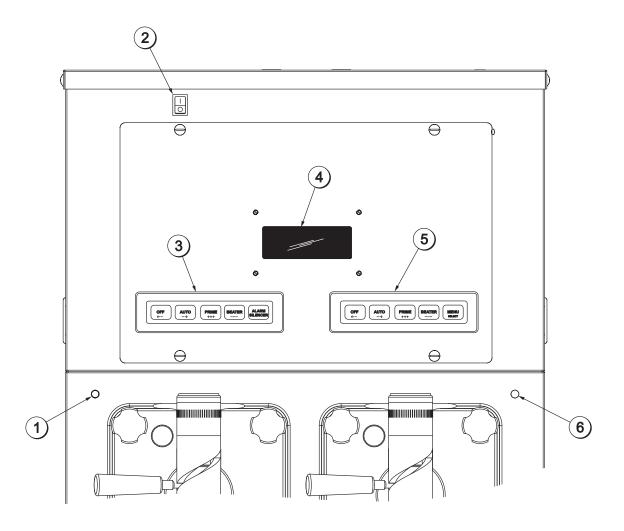


Figure 6

ITEM	DESCRIPTION
1	PRODUCT LIGHT - LEFT SIDE
2	CONTROL SWITCH
3	KEYPAD - LEFT SIDE
4	LIQUID CRYSTAL DISPLAY
5	KEYPAD - RIGHT SIDE
6	PRODUCT LIGHT - RIGHT SIDE

# **Symbol Definitions**

To better communicate in the International arena, symbols have replaced words on many of our operator switches, function, and fault indicators. Your Taylor equipment is designed with these International symbols.

The following chart identifies the symbol definitions.

#### **Control Switch**

The control switch is located at the top left corner of the control channel. When placed in the ON position, allows SLUSHTECH operation.

### **Liquid Crystal Display**

The Liquid Crystal Display (LCD) is located on the front control panel. The LCD is used to show the current operating mode of the freezing cylinders. The LCD also indicates whether there is enough syrup, CO<sub>2</sub>, and water being supplied to the freezer. If an error in the machine operation occurs, a warning tone will sound and the word "FAULT" will flash on the third line of the display.

### **Operational Mode Display**

The displays below illustrate the Operational Mode Displays. This information appears on the LCD during normal operation.

When the unit is plugged into the wall receptacle and the control switch is in the ON position, this screen appears.

SAFETY TIMEOUT ANY KEY ABORT

This display will remain on the LCD for 60 seconds unless a key is pressed. If any key is pressed (or 60 seconds passes) then the next screen appears.

OFF	MODE	OFF
OK	SYRUP	OK
CO2-OK		WATER-OK

Note: Syrup, CO<sub>2</sub> and water are satisfied.

Pressing the AUTO (-->) keys on both sides of the unit will display this screen.

AUTO	MODE	AUTO
OK	SYRUP	OK
CO2-OK		WATER-OK

Line 1 indicates the operating mode for each freezing cylinder.

Line 2 indicates the status of the syrup systems in each freezing cylinder. As long as syrup is available, the word "OK" will appear on the LCD. When the syrup supply is insufficient, the word "OUT" will flash on the LCD. The same rules apply to the fourth line which indicates the status of the CO<sub>2</sub> and the H<sub>2</sub>O.

The third line of this display is a fault indicator. If an error in machine operation occurs, the word "FAULT" will be displayed on the LCD.

BEATER	MODE	BEATER
OUT	SYRUP	OUT
FAULT		FAULT
CO2-OUT		H2O-OUT

# **Operator Menu Display**

The **OPERATOR MENU** is used to enter into the operating screens. To access the OPERATOR MENU, simply press the MENU (SEL) key. The cursor will flash under the letter "A", indicating that this is screen A. To select a different screen, use the AUTO (-->) and OFF (<--) keys to move the cursor to the desired screen selection and press the MENU (SEL) key.

	<b>OPERATOR MENU</b>	
	<u>A</u> BCDEFGHI	
EXIT MENU	_	
<>		SEL

#### **Operator Menu Timeout**

If the display is left in the operator menu or any of the operator menu selections, except for Current Conditions, the display will return to the system mode screen 60 seconds after the last keypress. The Current Conditions screen will be displayed until manually changed.

#### **Finding Current Fault Conditions**

**Screen B is FAULT DESCRIPTION**. The fault description will indicate if there is a fault in one of the freezing cylinders. When the actual fault is corrected, the warning tone will stop. Only item 9 requires pressing the OFF (<- -) key to clear the fault message and the warning tone.

Fault Messages		
Beater Overload	Beater is out on overload.	
Chk Refrig Sys Psi	Compressor is out on high head pressure.	
Thermistor Short	Shorted thermistor probe.	
Thermistor Open	Open thermistor probe.	
H2O Pressure Low	Water pressure is low.	
CO2 Pressure Low	CO <sub>2</sub> pressure is low.	
Syrup Pressure Low	Syrup is no longer present.	
BRL Temp 2 High	Freezing cylinder temperature is above 120°F (49°C).	
BRL Not Cooling	Freezing cylinder is not cooling after 5 minutes.	
No Fault Found	No fault conditions are apparent.	

The following are explanations of the possible faults and the display screens. Lines 2 and 3 indicate the faults found in freezing cylinders 1 and 2 respectively.

1. **NO FAULT FOUND** - No fault conditions are apparent.

FAULT DESCRIPTION
L: NO FAULT FOUND
R: NO FAULT FOUND
CLR +++ SEL

 BEATER OVERLOAD - Beater motor is out on overload. When this fault occurs, the machine automatically turns off. The fault clears when the condition is corrected.

FAULT DESCRIPTION
L: BEATER OVERLOAD
R: BEATER OVERLOAD
CLR +++ SEL

 CHK REFRIG SYS PSI - Compressor is out on high head pressure. When this fault occurs, the machine automatically turns off. The fault clears when the condition is corrected.

FAULT DESCRIPTION
L: CHK REFRIG SYS PSI
R: CHK REFRIG SYS PSI
CLR +++ SEL

 THERMISTOR SHORT - One or both of the barrel (freezing cylinder) thermistor probes are faulty.

FAULT DESCRIPTION
L: THERMISTOR SHORT
R: NO FAULT FOUND
CLR +++ SEL

5. **THERMISTOR OPEN** - One or both of the barrel (freezing cylinder) thermistor probes are faulty.

FAULT DESCRIPTION
L: THERMISTOR OPEN
R: NO FAULT FOUND
CLR +++ SEL

6. SYRUP PRESS LOW - When the syrup out indicator displays a lack of syrup, the unit will enter a HOLD mode. At this time, no refrigeration or product flow from the flow control will be allowed. Only the beater will operate. When the syrup is satisfied, the unit will refill the product tank, and then automatically return to the AUTO mode. The fault message and the warning tone will clear.

FAULT DESCRIPTION
L: NO FAULT FOUND
R: SYRUP PRESS LOW
CLR +++ SEL

7. CO<sub>2</sub> PRESSURE LOW - When the CO<sub>2</sub> out indicator displays a lack of CO<sub>2</sub>, a 60 second internal timer will start. If the CO<sub>2</sub> is not replenished at the end of the 60 seconds, both freezing cylinders will shut down and this fault message will appear. Replenish the CO<sub>2</sub> and the fault message and warning tone will clear.

FAULT DESCRIPTION
L: CO2 PRESSURE LOW
R: CO2 PRESSURE LOW
CLR +++ SEL

8. H<sub>2</sub>O PRESSURE LOW - When the water out indicator displays a lack of water, a 60 second internal timer will start. If the water is not replenished at the end of the 60 seconds, all freezing cylinders will shut down and this fault message will appear. Replenish the water and the fault message and warning tone will clear.

FAULT DESCRIPTION
L: H2O PRESSURE LOW
R: H2O PRESSURE LOW
CLR +++

9. BRL NOT COOLING - A freezing cylinder check has been established for the AUTO mode of operation. If a freezing cylinder enters the AUTO mode, the control will check product temperature. After five minutes, it will again check product temperature. If product temperature does not drop in that five minute time span, the freezing cylinder will shut down and this message will appear on the fault screen. For this check to be valid, the product temperature must be above 40°F (4.4°C).

FAULT DESCRIPTION
L: BARREL NOT COOLING
R: NO FAULT FOUND
CLR +++ SEL

 BRL TEMP 2 HIGH - A maximum allowable product temperature has been established to prevent product from excessive heating. If the product exceeds 120°F (49°C) temperature for any reason (in any mode of operation), the entire unit shuts down.

FAULT DESCRIPTION
L: BARREL TEMP 2 HIGH
R: NO FAULT FOUND
CLR +++ SEL

Faults, when corrected, are cleared from the fault description screen, with the following exception: BRL NOT COOLING. This fault requires the operator to press the OFF (<- -) key (when in the FAULT DESCRIPTION screen) in order for the fault to discontinue.

To see if there is more than one fault in either freezing cylinder, press the PRIME (+ + +) key. To return to the OPERATOR MENU, press the MENU (SEL) key once. To return to the Main Screen, use the AUTO (-->) key to cycle to MENU ITEM A, then press the MENU (SEL) key.

SEL

Screen C is SET CLOCK. Use the AUTO (-->) and OFF (<--) keys to place the cursor under the element to be set (hours, minutes, month, day, or year). Use the PRIME (+++) and BEATER (---) keys to increment or decrement the value. Press the MENU (SEL) key to advance to the Daylight Saving Time screen.

**Note:** The clock is programmed with military time.

SET CLOCK 14:30 10/25/06 <----> +++ --- SEL

This screen will appear if an invalid date is entered. (example: If the date entered exceeds the days of that month.)

SET CLOCK 14:30 02/31/07 INVALID DATE

SEL

This screen allows the Daylight Saving Time options. If the Daylight Saving Time option is enabled, then the time will be advanced by one hour at 2:00 a.m. on the first Sunday in April, and will be retarded by one hour at 2:00 a.m. on the last Sunday in October.

DAYLIGHT SAVING TIME
ENABLE DISABLE
<---> SEL

**Screen D is MANUAL DEFROST.** This screen allows the operator to **manually defrost** the left side of the unit.

Place the cursor under YES, press the MENU (SEL) key, and the command will be executed.

MANUAL DEFROST
LEFT SIDE YES NO
<----> SEL

Repeat the procedure for the right side of the unit.

MANUAL DEFROST YES NO

**Note:** Only one side of the unit may be placed in the DEFROST mode at a given time. Attempting to place a side of the unit into DEFROST while the other side is defrosting, will result in the following screen:

#### **ALREADY IN DEFROST**

Press the MENU (SEL) key to return the unit to the OPERATOR MENU.

**Screen E is SYSTEM INFORMATION**. It consists of 6 display features.

The first feature indicates the **software version**.

SYSTEM INFORMATION C300 CONTROL UVC2 VERSION 1.03

SEL

The second feature indicates the bill of material number and the serial number. It also indicates if the unit is equipped with a water pressure switch.

B.O.M. C30027C000 S/N K0000000 WITH H20 PRESS SW

SEL

The third feature indicates the version number of the language and text.

SYSTEM INFORMATION
LANGUAGE
VERSION 1.09 ENGLISH 446
SEL

The fourth feature will display the **Power Saver Mode, OFF, REST,** or **STANDBY** status.

If the Power Saver Mode is OFF, the following screen will be displayed.

POWER SAVER MODE OFF

If a Power Saver Mode is programmed, one of the following screens will appear.

**SEL** 

POWER SAVER REST

CYCLE 1 SUN 01:00

SUN 08:30

+++ --- SEL

POWER SAVER STANDBY
CYCLE 1 SUN 01:00
SUN 08:30
+++ --- SEL

The fifth feature will indicate the left side defrost time and which day(s) the defrost will occur.

DEFROST TIME LEFT
CYCLE 1 ALL 09:00
+++ --- SEL

DEFROST TIME LEFT
CYCLE 1 SUN 09:00
<----> +++ --- SEL

The sixth feature will indicate the right side defrost time and which day(s) the defrost will occur.

DEFROST TIME RIGHT
CYCLE 1 ALL 10:00
+++ --- SEL

 DEFROST TIME RIGHT
 CYCLE 1
 SUN
 10:00

 <--->
 +++
 -- SEL

Press the MENU (SEL) key to return to the OPERATOR MENU.

Screen F is CURRENT CONDITIONS. This screen displays the current viscosity, product temperature, and pressure for each freezing cylinder. An **asterisk** will indicate which side is refrigerating. Press the MENU (SEL) key to return to the OPERATOR MENU.

**Note:** Viscosity is checked only when product temperature is below  $40^{\circ}F/4.4^{\circ}C$ .

CURRENT CONDITIONS
L\*1200Hd 27.3F
R\*1200Hd 27.3F
SEL

**Screen G is FAULT HISTORY**. This option provides a record of the last 20 faults. The display also indicates the date and time each fault occurs.

FAULT HISTORY 1
10/25/06 08:34
NO FAULT FOUND
<----> +++ --- SEL

Press the AUTO (- ->) and OFF (<- -) keys to increase or decrease the **fault page**.

Page numbers are located in the upper right hand corner of the display. The most recently recorded fault will appear on page 1. The fault **description** is listed on the third line of the fault page.

FAULT HISTORY 2
10/25/06
R SYRUP PRESS LOW 08:33
<-- --> +++ --- SEL

Press the AUTO (--->) key to move to the next screen. The next screen will indicate when the fault was satisfied.

FAULT HISTORY 2
10/25/06 14:06:19
RESTORED FROM FAULT
PAGE 2 +++ --- SEL

Press the MENU (SEL) key to return to the OPERATOR MENU.

**Screen H is RINSE/SANITIZE.** This screen allows the operator to rinse or sanitize the freezing cylinder(s).

	RINSE / SANITIZE	
RINSE	SANITIZE	EXIT
<>		SEL

Use the AUTO (- ->) and OFF (<- -) keys to select either RINSE or SANITIZE, and then press the MENU (SEL) key.

	SANITIZE	
LEFT SIDE	Y	ES NO
<>	S	EL

Use the cursor keys to select YES or NO, then press the MENU (SEL) key.

	SANITIZE		
RIGHT SIDE		YES	NO
<>		SEL	

Repeat for the right side of the unit.

Screen I is SERVICE MENU. This screen allows the authorized service technician to access service information. Press the MENU (SEL) key to return to the OPERATOR MENU.



### **Syrup Out Indicator**

AUTO	MODE	AUTO
OUT	SYRUP	OK
СО2-ОК		WATER-OK

If the word "OUT" appears in one of the columns next to the word "SYRUP", it indicates a lack of syrup or syrup pressure being supplied for the indicated freezing cylinder. If the unit is in the AUTO or PRIME modes, the PRODUCT NOT READY light will illuminate and a warning tone will sound for that freezing cylinder. At this time, replace the appropriate bag-in-the-box. As a safety feature, the refrigeration system automatically stops to prevent a freeze-up in the freezing cylinder.

If a syrup out condition occurs on one side, that side will enter the HOLD mode at which time the refrigeration remains off and the beater continues to run. The opposite side will not be affected. When the syrup is satisfied, the unit will refill the product tank, and then automatically return to the AUTO mode.

# CO<sub>2</sub> Out Indicator

AUTO	MODE	AUTO
OK	SYRUP	OK
CO2-OUT		WATER-OK

On the LCD, if the word "OUT" appears next to the word " $CO_2$ " it indicates a lack of  $CO_2$  being supplied to the freezer. The product light will also illuminate and a warning tone will sound. This will continue until the  $CO_2$  is replaced. If the  $CO_2$  is not replaced within one minute, the machine will shut down and a fault message will appear.

#### **Water Out Indicator**

AUTO	MODE	AUTO
OK	SYRUP	OK
CO2-OK		WATER-OUT

On the LCD, if the word "OUT" appears next to the word "WATER", it indicates a lack of water being supplied to the freezer. In addition, the product light will illuminate and a warning tone will sound. This will continue until the proper amount of water is supplied to the freezer. If the water is not supplied within one minute, the machine will shut down and a fault message will appear.

#### **Audio Alarm Silencer**

The audio alarm will be disabled if the ALARM SILENCE key is pressed. If a new fault or fault condition occurs or the system mode changes, the audio alarm will be re-enabled automatically. If the audio alarm is silenced for greater than 30 minutes without correcting the fault, it will be re-enabled automatically.

### **Product Light**

When the light is continuously lit (not flashing) it indicates that there is an "OUT" condition for syrup, water, or CO<sub>2</sub>.

When the light is flashing, it indicates that the product is not at serving viscosity. This will occur during the initial freeze down, a defrost cycle and a FAULT condition and during power saver modes.

### **Sampling Valve**

The sampling valve is located behind the lower front panel. The sampling valve is used to obtain a brix reading.

# **Daily Procedures**

The following procedure should be performed daily.

Remove the splash shield and front drip tray. Take these parts to the sink and brush-clean them. Re-install the parts onto the freezer. Use a clean, sanitized towel and wipe down the front of the machine, including the doors and spouts.

# **Section 6**

# **Operating Procedures**

The Model C300NP contains two 7 quart (6.6 liter) freezing cylinders.

The syrup flow control combines the two ingredients of water and syrup, and sends this combination to the freezing cylinder. As product is drawn, new product will flow from the flow control into the freezing cylinder. CO<sub>2</sub> is supplied after the flow control to carbonate the product and aid in dispensing.

We begin our instructions at the point where the parts are disassembled and laid out to air dry.

The following procedures will show you how to assemble the parts into the freezer, sanitize them, and prime the freezer with fresh product.

Duplicate the following procedures, where they apply, for the other freezing cylinder.

If you are disassembling the machine for the first time or need information to get to this starting point in our instructions, turn to page 27, "Disassembly" and start there.

# **Assembly**

MAKE SURE THE CONTROL SWITCH IS IN THE "OFF" POSITION. Failure to do so may result in personal injury or component damage.

**Note:** When lubricating parts, use an approved food grade lubricant (example: Taylor Lube HP).

#### Step 1

Slide the o-ring into the first groove on the drive shaft. Lubricate the groove, o-ring, the area where the boot seal snaps onto the drive shaft, and the shaft portion that comes in contact with the bearing on the beater drive shaft. **DO NOT lubricate the hex end of the drive shaft.** 

Slide the seal over the shaft and groove until it snaps into place. Pinch the boot seal and fill the inside portion of the seal with 1/4" more lubricant.

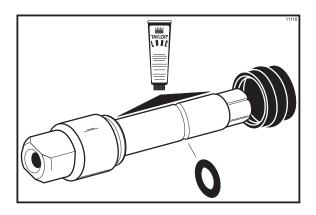


Figure 7

#### Step 2

Insert the drive shaft into the freezing cylinder, (hex end first) and into the rear shell bearing, until the seal fits securely over the rear shell bearing. Be certain the drive shaft fits into the drive coupling without binding.

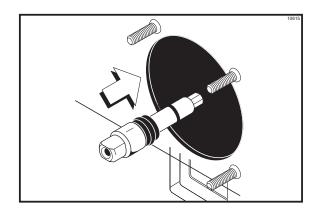


Figure 8

Check the scraper blade for any nicks or signs of wear. If any nicks are present, replace the blade. If the blade is in good condition, place the clip over the blade. Place the rear scraper blade and clip over the single holding pin on the beater (knife edge to the outside). Holding the blade on the beater, turn it over and install the front blade the same way.

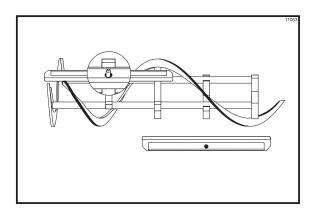


Figure 9

#### Step 4

Holding the blades in position, insert the beater assembly into the freezing cylinder and slide it into position over the drive shaft. Turn the beater slightly to be certain that the beater is properly seated. When in position, the beater will not protrude beyond the front of the freezing cylinder.

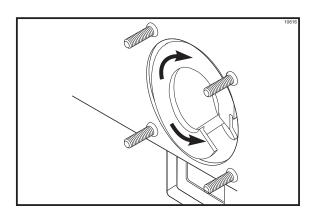


Figure 10

#### Step 5

Install the white, plastic guide bearing on the short end of the baffle assembly. Slide the o-ring into the groove on the long end of the baffle assembly and lubricate the o-ring. Do not lubricate the guide bearing.

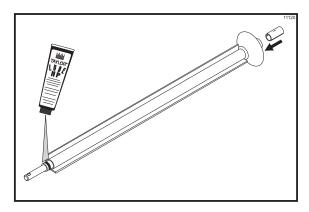


Figure 11

#### Step 6

Insert the short end of the baffle assembly into the pilot hole in the center of the drive shaft. The hole in the baffle assembly shaft should be rotated to the 12 o'clock position.

#### Step 7

Assemble the freezer door with the "Ice Buster" (door spout clearing device). To assemble the door with the ice buster, install the o-rings on the draw valve and lubricate.

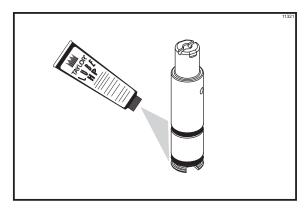


Figure 12

Insert the draw valve into the door.

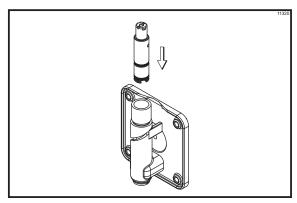


Figure 13

#### Step 9

Rotate the draw valve so the groove on the top of the draw valve is perpendicular to the door face.

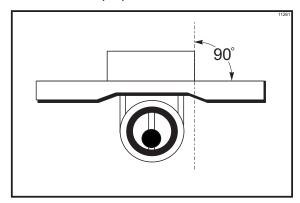


Figure 14

#### Step 10

Insert the ice buster through the door spout and into the slot located just above the lower o-ring.

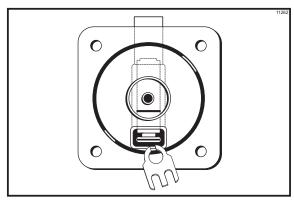


Figure 15

#### Step 11

With the ice buster in place, rotate the draw valve to allow installation of the draw handle. This will lock the ice buster in place. With the draw handle in place, install the draw handle pin. Close the draw valve by moving the handle to the left.

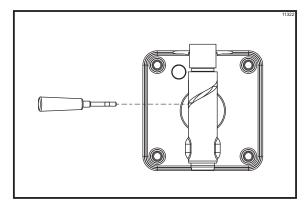


Figure 16

#### Step 12

Install the draw valve spring, pin, and cap.

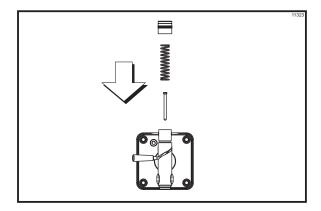


Figure 17

Place the large rubber gasket into the groove on the back side of the freezer door.

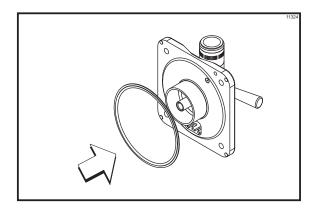


Figure 18

#### Step 14

Slide the white, plastic front bearing onto the bearing hub, making certain that the flanged end of the bearing is resting against the freezer door. **DO NOT** lubricate the door gasket or front bearing.

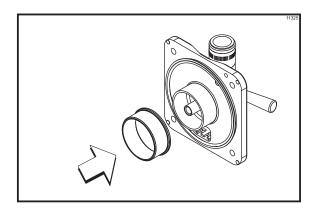


Figure 19

#### Step 15

Position the freezer door onto the four studs on the front of the freezing cylinder and push the door into place. Install the four handscrews onto the studs and tighten them equally in a crisscross pattern to insure that the door is snug. **DO NOT** over-tighten the handscrews.

**Note:** If the freezer door does not fit into place easily, position the open end of the beater assembly in the 11 o'clock position.

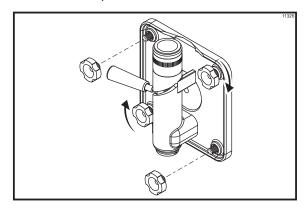


Figure 20

#### Step 16

Position the baffle arm by inserting it down into the hole on the baffle assembly which protrudes from the door. Verify proper installation by moving the baffle assembly back and forth to be sure it moves freely.

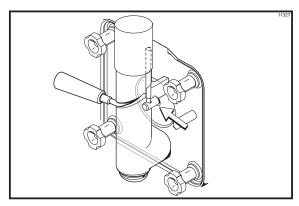


Figure 21

Repeat Steps 1 through 16 for the remaining freezing cylinder(s).

# Sanitizing

**Note:** If a unit is sanitized, and will not be used for an extended period of time, clean water should be used to flush all sanitizer from the lines. Remove the water from all the lines and components prior to storage of the unit. Upon return to service, the unit must be sanitized prior to use.

#### Step 1

Open the lighted display door. Place the control switch in the ON position.

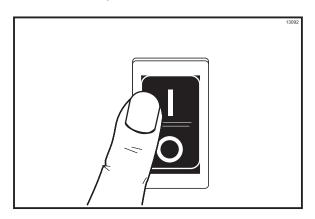


Figure 22

#### Step 2

Prepare two gallons (7.6 liters) of an approved 100 PPM sanitizing solution (example: Kay-5®). USE WARM WATER AND FOLLOW THE MANUFACTURER'S SPECIFICATIONS.

Important: Make sure the sanitizer is completely dissolved.

#### Step 3

Using an empty bag of syrup, cut the syrup line connector from the end of the bag.

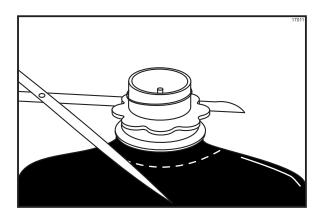


Figure 23

#### Step 4

Connect the syrup line to the syrup line connector that was cut from the syrup bag.

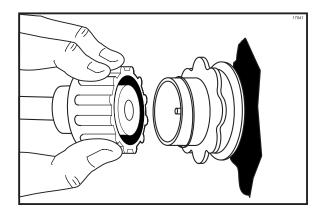


Figure 24

#### Step 5

With the bag connector attached to the syrup line, place the syrup line into the pail of sanitizing solution.

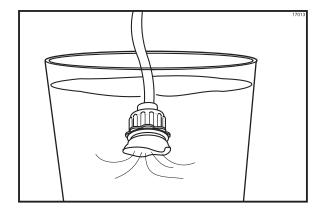
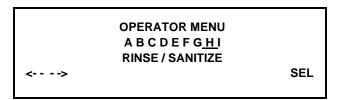


Figure 25

#### Step 6

To place the left freezing cylinder in the SANITIZE mode, press the MENU (SEL) key. Move the cursor by pressing the AUTO (-->) key until the third line indicates RINSE / SANITIZE.



Press the MENU (SEL) key.

Move the cursor under the word "SANITIZE" by pressing the OFF (<- -)key.



#### Step 7

Pressing the MENU (SEL) key will give you the option for sanitizing the left freezing cylinder. Move the cursor under the word "YES". Pressing the MENU (SEL) key at this time will start the flow of sanitizing solution into the left freezing cylinder.

	SANITIZE		
LEFT SIDE		YES	NO
<>			SEL

Repeat Steps 6 - 7 for the right side freezing cylinder.

	SANITIZE		
RIGHT SIDE		YES	NO
<>			SEL

#### Step 8

Open the prime plugs. Place an empty pail under the door spouts. When sanitizing solution fills the freezing cylinders approximately 2/3 full, close the prime plugs.

#### Step 9

Continue filling the freezing cylinders with sanitizing solution until the solution purges out of the vent at the top of the mix tank, and begins draining into the front drip tray. Press the OFF (<- -) key.

#### Step 10

Press the BEATER (- - -) key. Agitate the solution in the freezing cylinders for five minutes.

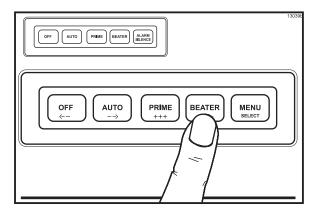


Figure 26

#### Step 11

With a pail beneath the door spouts, open the draw valves and drain all the solution from the freezing cylinders. Press the OFF (<- -) key and close the draw valves.

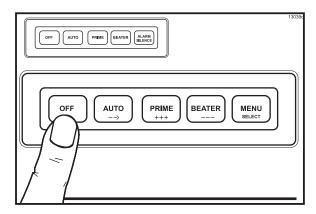


Figure 27

#### Step 12

Disconnect the syrup connectors in the sanitizing solution.

# **Priming/Brixing**

#### Step 1

Connect the syrup line to the Bag-in-Box (BIB) syrup.

#### Step 2

Remove the drip tray, splash shield and the lower front panel to gain access to the syrup sampling valves.

#### Step 3

Open the prime plug.

#### Step 4

Place the sampling valve in the OFF (center) position.

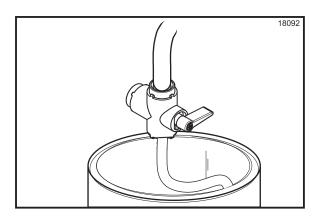


Figure 28

# Step 5 Press the PRIME (+ + +) key.

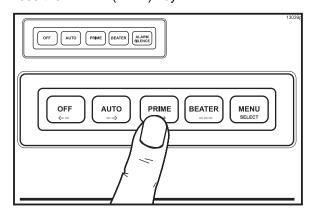


Figure 29

#### Step 6

Slowly move the syrup sampling valve to the fully open position by turning the handle "down" toward the sampling line. Allow the liquid to run into a pail until all the sanitizer is removed and full strength product is flowing.

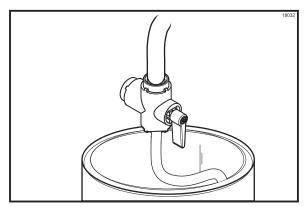


Figure 30

Brix is the ratio of syrup to water which will directly affect the quality and taste of the product. Brixing should be done before priming the freezer and when a change in syrup flavor has been made.

Pour the product from the syrup sampling valve into a cup. Close the syrup sampling valve by turning the handle to the center position.

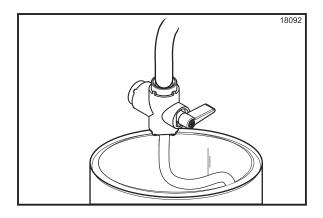


Figure 31

#### Step 8

Stir the finished product. Pour a small amount of product over the refractometer. The brix reading should register 13 to 14. A reading higher than this would cause a darker, richer product. The refrigeration system would have to run longer to freeze this excess syrup. A reading lower than this could cause a freeze-up in the freezing cylinder because of the excess water.

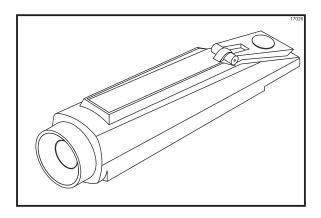


Figure 32

#### Step 9

To adjust the brix, turn the adjustment screw located behind the drip tray shelf. Clockwise adjustments increase the amount of syrup to water, and counterclockwise adjustments decrease the amount of syrup to water. Adjust the screw in small increments and check the brix again.

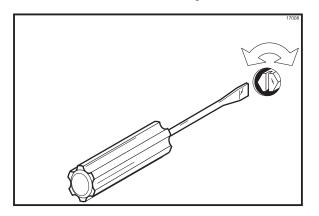


Figure 33

**Repeat this step** until a correct brix reading is registered.

#### Step 10

Once the proper brix has been achieved, turn the handle "up" to allow product to flow to the mix tank.

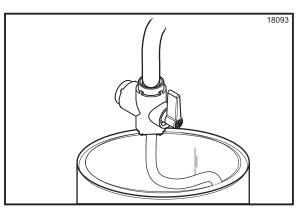


Figure 34

**Note:** The position of the handle on the syrup sampling valve determines the direction of product flow. The down position opens the syrup sampling valve for collecting brix samples. The center position shuts off the product flow. The up position directs the flow of product to the freezing cylinder.

Place a pail beneath the door spout. Open the draw valve and drain the freezing cylinder to remove any incorrectly brixed product. Close the draw valve.

#### Step 12

Hold a large cup under the prime plug port on the door, until the liquid level (not foam) reaches 1/4-3/8" (6-9 mm) below the prime hole. Press the OFF (<- -) key and then close the prime plug.

#### Step 13

Press the BEATER (- - -) key. Let the unit run in the BEATER mode for one minute. Press the OFF (<- -) key.

#### Step 14

Press the PRIME (+ + +) key. Allow the liquid level to fill to the prime plug hole

**Repeat Steps 1 through 14** for the other freezing cylinder.

#### Step 15

To place the freezing cylinders in the AUTO mode, press the AUTO (-->) key on both sides. When the unit cycles off, the product will be at serving viscosity.

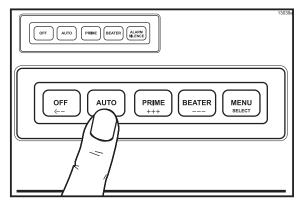


Figure 35

#### Step 16

Close the lighted display when complete. Replace the panels and the hood, and attach with screws. Install the front drip tray and the splash shield on the front of the freezer.

### 120 Day Closing Procedure

We recommend that the machine be completely disassembled and cleaned at least every 120 days using the following procedures.



To disassemble the Model C300, the following items will be needed:

- Two cleaning pails
- Necessary brushes (provided with freezer)
- Cleaner
- Single service towels

# **Draining Product From the Freezing Cylinder**

#### Step 1

Press the BEATER (- - -) key. This will allow the beater to operate to push the product from the freezing cylinder. Open the draw valve and drain the product from the machine.

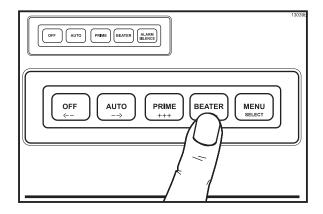


Figure 36

When all the product has been drained from the freezing cylinder, close the draw valve and press the OFF (<- -) key. Discard this product.

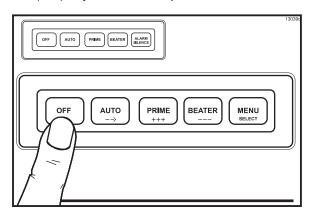


Figure 37

Repeat Steps 1 and 2 for the other freezing cylinder.

### Rinsing

#### Step 1

To place the left cylinder in the RINSE mode, press the MENU (SEL) key. Move the cursor by pressing the AUTO (-->) key until the third line indicates RINSE / SANITIZE.



Press the MENU (SEL) key. Move the cursor under "RINSE" by pressing the OFF (<- -) key twice.

	RINSE / SANITIZE	
RINSE	SANITIZE	EXIT
<>		SEL

#### Step 2

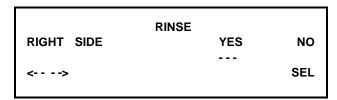
Pressing the MENU (SEL) key will give you the option for rinsing the left freezing cylinder. Move the cursor under the word "YES". Pressing the MENU (SEL) key at this time will start the beater motor and deliver water and  $\mathrm{CO}_2$  to the left cylinder.



#### Step 3

Allow the rinse water to flow into the cylinder until it is approximately 2/3 full. With a pail under the door spout, open the draw valve and drain the rinse water. Repeat this procedure until the rinse water being drawn is clear.

Repeat Steps 2 - 3 for the right side.



When draining is complete, press the OFF (<- -) key

# Cleaning

#### Step 1

Prepare two gallons (7.6 liters) of an approved cleaning solution (example: Kay-5®). USE WARM WATER AND FOLLOW THE MANUFACTURER'S SPECIFICATIONS.

Important: Make sure the cleaner is completely dissolved.

#### Step 2

Pour the cleaning/sanitizing solution into a clean, empty pail. Place the syrup line with the old syrup connector into the pail of cleaner.

To place the left freezing cylinder in the SANITIZE mode, press the MENU (SEL) key. Move the cursor by pressing the AUTO (-->) key until the third line indicates RINSE / SANITIZE. Press the MENU (SEL) key. Move the cursor under the word "SANITIZE".

	RINSE / SANITIZE	
RINSE	SANITIZE	EXIT
<>		SEL

Pressing the MENU (SEL) key will give you the option to sanitize the left cylinder. Move the cursor under the word "YES". Pressing the MENU (SEL) key at this time will start the flow of cleaner/sanitizer through the syrup system into the freezing cylinder.

	SANITIZE	
LEFT SIDE	YES	NO
<>		SEL

Repeat this procedure for the right side freezing cylinder.

#### Step 4

Open the prime plugs. Allow each cylinder to fill approximately 2/3 full. Close each prime plug.

#### Step 5

Continue filling the freezing cylinders with sanitizing solution until the solution purges out of each vent, and begins draining into the front drip tray. The vents are located at the top of each mix tank. Press the OFF (<- -) key.

#### Step 6

Press the BEATER (- - -) key to agitate the solution in each freezing cylinder for five minutes.

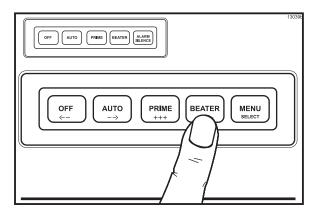


Figure 38

#### Step 7

With a pail beneath the door spouts, open the draw valves and drain all the solution from the the freezing cylinders. Press the OFF (<- -) key and close the draw valves.

### Disassembly

MAKE SURE THE CONTROL SWITCH IS IN THE "OFF" POSITION. Failure to do so may result in personal injury or component damage.

#### Step 1

Remove the following parts from the freezer and take them to the sink for brush cleaning.

- handscrews
- freezer doors
- beater assemblies and scraper blades
- drive shafts and boot seals
- front drip tray
- splash shield

### **Brush Cleaning**

#### Step 1

Prepare a sink or a pail with an approved cleaning solution. USE WARM WATER AND FOLLOW THE MANUFACTURER'S SPECIFICATIONS (example: Kay-5®).

**IMPORTANT:** Follow the label directions. Too STRONG of a solution can cause parts damage, while too MILD of a solution will not provide adequate cleaning. Make sure all brushes provided with the freezer are available for brush cleaning.

#### Step 2

Return to the freezer with a small amount of cleaning solution. With a single service towel, wipe clean the rear shell bearing surface. Brush-clean the rear shell bearings at the back of the freezing cylinders with the black bristle brush.

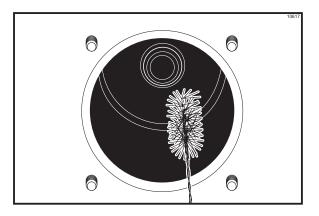


Figure 39

#### Step 3

Remove the:

- seals and o-rings from the drive shafts
- caps, pins, and springs from freezer doors
- draw valve handles from freezer doors
- draw valves from freezer doors
- o-rings from draw valves
- prime plugs from freezer doors
- · o-rings from prime plugs
- gaskets and front bearings from freezer doors
- baffle assembly, baffle arm, guide bearing, and o-ring

Discard all o-rings and replace them with new ones.

**Note:** To remove o-rings, use a single service towel to grasp the o-ring. Apply pressure in an upward direction until the o-ring pops out of its groove. With the other hand, push the top of the o-ring forward. It will roll out of the groove and can be easily removed. If there is more than one o-ring to be removed, always remove the rear o-ring first. This will allow the o-ring to slide over the forward rings without falling into the open grooves.

#### Step 4

Using a single-service towel, wipe the lubricant off the parts. Brush-clean all disassembled parts in the cleaning solution. Make sure all lubricant and syrup is removed. Place all the cleaned parts on a clean, dry surface to air-dry.

#### Step 5

Wipe clean all the exterior surfaces of the freezer.

# Section 7 Important: Operator Checklist

### **During Cleaning and Sanitizing**

	Ţ	/
	•	-

**ALWAYS FOLLOW LOCAL HEALTH CODES** 

Cleaning and sanitizing schedules are governed by your State or local regulatory agencies and must be followed accordingly. The following check points should be stressed during the cleaning and sanitizing operations.

WE RECOMMEND CLEANING AND SANITIZING EVERY 120 DAYS.

### **Troubleshooting Bacterial Count**

- 1. Thoroughly clean and sanitize the machine regularly, including complete disassembly and brush cleaning.
- Use all brushes supplied for thorough cleaning. The brushes are specially designed to reach all product passageways.
- 3. Use the black bristle brush to thoroughly clean the rear shell bearing located at the rear of the freezing cylinder. Be sure there is a generous amount of cleaning solution on the brush.
- 4. Using a screwdriver and a cloth towel, keep the rear shell bearing and the female hex drive socket clean and free of lubricant and product deposits.
- 5. Properly prepare the cleaning and sanitizing solutions. Read and follow the label directions carefully. Too strong of a solution may damage the parts and too weak of a solution will not do an adequate job of cleaning or sanitizing.

- 6. Clean and sanitize the syrup lines regularly to prevent syrup residue build-up that would restrict the proper flow of syrup.
- ☐ 7. On a regular basis, take a brix reading to assure a consistent quality product.

# **Regular Maintenance Checks**

- □ 1. Replace scraper blades that are nicked, damaged or worn down.
- 2. Before installing the beater, be certain that the scraper blades are properly attached over the pins.
- ☐ 3. Check the rear shell bearing for signs of wear (excessive product leakage from the rear drip pans to the front drip tray).
- 4. Dispose of o-rings or seals if they are worn, torn, or fit too loosely, and replace with new ones.
- ☐ 5. Follow all lubricating procedures as outlined in "Assembly".
- 6. Check the condenser for an accumulation of dirt and lint. A dirty condenser will reduce the efficiency and capacity of the machine. The condenser should be cleaned **monthly** by removing the poly-flo filter and cleaning it.

080926

### **Winter Storage**

If the place of business is to be closed during the winter months, it is important to protect the freezer by following certain precautions, particularly if the building is subject to freezing conditions.

Disconnect the freezer from the main power source to prevent possible electrical damage.

Your local Taylor Distributor can perform this service for you.

Wrap detachable parts of the freezer such as the beater, the scraper blades, the drive shaft, and the freezer door. Place these parts in a protected, dry place. Rubber trim parts and gaskets can be protected by wrapping them with moisture-proof paper. All parts should be thoroughly cleaned of dried mix or lubrication which attract mice and other vermin.

**Note:** It is recommended that an authorized service technician perform winter storage draining, to insure all water has been removed. This will guard against freezing and rupturing of the components.

# **Section 8**

# **Troubleshooting Guide**

	PROBLEM	PROBABLE CAUSE	REMEDY	PAGE REF.
1.	Product is too stiff.	a. Too much water to syrup ratio. Improper brix adjustment.	Adjust the brix accordingly.	23
		<ul> <li>b. Consistency control needs adjustment.</li> </ul>	b. Contact a service technician.	
		<ul> <li>c. Torque coupling bound in WARM position.</li> </ul>	c. Contact a service technician.	
2.	Product is too soft.	a. Freezer in a defrost cycle.	Wait for defrost cycle to end.	
		<ul> <li>b. Consistency control needs adjustment.</li> </ul>	b. Contact a service technician.	
		<ul> <li>c. Torque coupling bound in COLD position.</li> </ul>	c. Contact a service technician.	
		<ul> <li>d. Broken springs in torque coupling.</li> </ul>	d. Contact a service technician.	
3.	No product is being dispensed.	a. Product frozen-up in freezing cylinder.	a. See problem No. 1.	
4.	Freezer will not operate in the BEATER or AUTO mode.	a. Unit is unplugged.	a. Check the plug at wall receptacle.	
		<ul> <li>Blown fuse, or the circuit breaker is off.</li> </ul>	b. Replace the fuse or turn the breaker on.	
		<ul> <li>c. Beater motor is out on overload. Check fault description screen.</li> </ul>	c. Allow the motor to cool. Press the AUTO (>) key. Call a service technician if the beater motor goes out on overload again.	11
5.	No compressor operation in the AUTO mode.	Beater motor is out on overload. Check the fault description screen.	a. Allow the motor to cool. Press the AUTO (>) key. Call a service technician if the beater motor goes out on overload again.	11
		<ul> <li>b. The torque coupling is bound in the COLD position.</li> </ul>	b. Contact a service technician.	
		c. Condenser dirty, A/C.	c. Clean condenser monthly.	29
		d. Water supply off, W/C.	d. Turn the water on.	

	PROBLEM	PROBABLE CAUSE	REMEDY	PAGE REF.
6.	Unable to remove the drive shaft from the rear shell bearing.	Rounded corners of hex end of drive shaft, drive coupling, or both.	Replace the drive shaft, or call a service technician to replace the direct drive unit.	
		b. Lubrication of hex end of drive shaft.	b. Do not lubricate the hex end. If necessary, contact a service technician for removal.	17
7.	Excessive loss of CO <sub>2</sub> .	a. Leak in the CO <sub>2</sub> system.	a. Contact a service technician.	
8.	Leakage from rear drip pan(s) into front drip tray.	Seal or o-ring on drive     shaft is worn, missing, or     incorrectly installed.	Replace or install correctly on drive shaft.	17
		b. Worn rear shell bearing.	b. Contact a service technician to replace rear shell bearing.	
9.	Excessive mix leakage from door spout.	a. Inadequate lubrication of draw valve o-rings.	a. Lubricate properly.	18
		b. Wrong type lubricant on draw valve o-rings.	b. Use food grade lubricant (example: Taylor Lube HP).	17
		c. Worn or missing draw valve o-rings.	c. Replace or install o-rings on draw valve.	18/ 33
10	. Unable to adjust brix.	Syrup lines need to be cleaned and sanitized.	a. Clean and sanitize syrup lines.	
		b. Blocked flow control.	b. Contact a service technician.	
11	Lack of syrup being supplied to machine.	a. Loss of CO <sub>2</sub> to propel syrup.	a. Contact a service technician.	
		b. Clogged or kinked syrup lines.	b. Sanitize syrup lines regularly. If kinked, repair or replace.	

## Section 9 Parts Replacement Schedule

PART DESCRIPTION	EVERY 4 MONTHS	EVERY 8 MONTHS	ANNUALLY
Scraper Blade		Х	
Drive Shaft Seal	Х		
Drive Shaft O-Ring	Х		
Freezer Door Gasket	Х		
Draw Valve O-Ring	Х		
Front Bearing	Х		
Prime Plug O-Ring	Х		
Black Bristle Brush, 1" x 2"		Inspect & Replace if Necessary	Minimum
Double Ended Brush		Inspect & Replace if Necessary	Minimum
White Bristle Brush, 1-1/2" x 2"		Inspect & Replace if Necessary	Minimum
White Bristle Brush, 3" x 7"		Inspect & Replace if Necessary	Minimum

## **Parts List**

DESCRIPTION	PART	QTY.	WARR.	REMARKS	PARTS
	NUMBER		CLASS	<u> </u>	UPDATE
ACCUMULATOR-COPPER 2"DIA 13"LG	053377	1	103		
ACCUMULATOR-COPPER 2"DIA 13"LG	053377	1	103		
ARM-BAFFLE *345/46/49/355/390	047729	2	103		
ARM AIDLER *356*	X64892	1	103		
ARM-IDLER *358*	046012	1	103		
SLEEVE-IDLER ARM *358*	046013	1	103		
BAFFLE A. *345/46/49/355/390	X47731	2	103		
BEARING-FRONT	013116	2	000		
BEARING-GUIDE	014496	2	000		
BEARING-REAR SHELL *PLASTIC*	032511	2	000		
+GUIDE-DRIP SEAL	028992	2	000		
+NUT-BRASS BEARING	028991	2	000		
+O-RING-1-1/16 OD X .070 WALL	018432	2	000		
+WASHER-BEARING LOCK	012864	2	000		
BEARING-UNIT-REAR 1-3/8" SHAFT	054579	2	103		
BEATER A7QT-1 PIN-SUPPORT	X46233	2	103		
+BLADE-SCRAPER-PLASTIC 9-13/1	046237	4	000		
+CLIP-SCRAPER BLADE 8.75 INCH	046238	4	103		
BELT-1/2IN PITCH 240H100	033145	1	000	BEARING UNIT 208-230 60HZ 1PH	
BELT-POLY V-540J10	065639	1	000	10/15/07 REPLACES 054849	
BLOCK-TERMINAL 2P-L1,L2	039422	1	103	208-230V 60HZ 1PH	
BLOCK-SENSOR MOUNT *C302*	062277-1	2	103	208-230V 60HZ 1PH	
BLOCK-TERMINAL-PLUG 6P .2 SIP	040322-002	1	103	208-230V 60HZ 1PH	
BLOCK-TERMINAL 3P L1,L2,L3	039423	1	103	308-230V 60HZ 3PH	
BRUSH APACKAGE C300	X64275	1	000		
BRUSH-DOUBLE ENDED-PUMP&FEED T	013072	1	000		
BRUSH-DRAW VALVE 1-1/2"OD X 3"	014753	1	000		
BRUSH-MIX PUMP BODY-3"X7"WHITE	023316	1	000		
BRUSH-REAR BRG 11N.DX21N.LGX14	013071	1	000		
CABLE-RIBBON-14C-22"L-SIP/SIP	040040-019	1	103	TO LCD	
CABLE-RIBBON-20C- 4"L-DIL/DILR	040040-057	1	103	J7UC TO J8IF	
CABLE-RIBBON-20C-14"L-DIL/DILR	040040-056	1	103	J2UC TO J10IF	

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
+LENS-DISPLAY	038221	-	103		
+STANDOFF-LENS	038225	4	000		
DOOR APARTIAL-SLUSH-SLFCLO	X57324-SER	2	103		
+BUSTER-ICE	047735	2	103		
+CAP ASPRING RETAINER	X30591	2	103		
+HANDLE ADRAW-SLUSH-BLACK	X47384	2	103		
+PLUG-PRIME*430*STNLS	050405	2	103		
+O-RING563 OD X .070W-#013	043758	2	000		
+PIN-HANDLE-VALVE	064864	2	103	REPLACES 031974	
+SPRING-COMP.970X.082X3.875-S	030344	2	103		
+VALVE-DRAW *SLUSH*SLFCLS-ICE	047734-SP	2	103		
+O-RING-1"OD X.139W	032504	4	000		
DRYER-FILTER 3/8 X 3/8SOL HP62	049154	-	000		
FASTENER-DOOR LATCH	030787	-	000	POP UNIT SIDE	
FASTENER-DOOR STRIKE	030788	_	000	POP DISPLAY	
FILTER-AIR-15.88LX15.88HX.70W	052779-5	-	000		
+COVER-HOLE-FILTER *C300*	054673	7	NNN		
FILTER-CORCOM 6EH1	040140-001	1	103		
FILTER-H20-5 MICRON-INLINE W/F	064422	1	000	K7060000 & UP	
FLOW CONTROL-15PSI-W/O FLOAT	X53243-27L	7	103		
BODY AFLOW CONTROL W/SOL.	X48729-27	_	103		
BOWL AFLOAT-FLO CNTRL-W/PL	X53244	1	000		
SCREW-8-32X3/8TAPTITE-HEX HD	041951	2	000		
SWITCH-PRESSURE-SYRUP-15PSI	049706	1	103		
FUSE-15 AMP-IN LINE-NON DELAY	045293	1	000		
GASKET-BASE PAN *300*	054666	1	000		
GASKET-DOOR 5.109" ID X 5.630	014030	7	000		
GASKET-FRONT PANEL	049031	2	000		
GUARD-FAN	500304	1	103		
GUIDE ADRIP PAN *C300*	X54686	1	103		
HARNESS-WIRE-C300 PWR/COMP	056334-27	1	103	208-230V 60HZ 1PH	
HARNESS-WIRE *C300* PWR/COMP	056334-33	1	103	208-220V 60HZ 3PH	
HARNESS-WIRE *C300* HI VOLT	056827-27	1	103		

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
HARNESS-WIRE-C300-L0 VOLT	055503	-	103		
HOLDER-FUSE-IN LINE-TYPE HLR	045606	٦	103		
HOOD *C300*	054677	_	103		
KIT ATUNE UP *C300* NP	X56829	2	000		
BEARING-FRONT	013116	-	000		
GASKET-DOOR 5.109"ID X 5.630	014030	-	000		
BEARING-GUIDE	014496	-	000		
O-RING-3.437 ID X .275 W	016037	_	000		
O-RING291 ID X .080W	018550	٦	000		
O-RING-7/8 OD X .139W	025307	_	000		
O-RING-1"OD X .139W	032504	2	000		
SEAL-DRIVE SHAFT	032560	_	000		
TOOL-O-RING REMOVAL-FREEZER	048260-WHT	-	000		
LABEL-DOOR-MOVE PART	032749	-	000		
LABEL-SWITCH-CONTROL	053145	-	000		
LABEL-WARN-COVER	051433	4	000		
LABEL-WARN-NO DRAW	042279	2	000		
LED APRODUCT NOT READY	059711	1	103		
LENS-YEL LED-SNAP IN 1/4" HOLE	051751	2	103		
LINE AWATER *C300* CARB/FC	X62512	1	103		
ADAPTOR-SWV 1/4FFLX1/4 BARB-	016715	2	103		
WASHER-1/4 FLARE-NYLON	018595	4	000		
ADAPTOR-1/4MFL X 1/4 BARB-SS	018646	2	103		
TEE-1/4BARB-SS	019762	1	103		
VALVE-CHECK 1/4FFL INX1/4MFL	030386	2	103		
FITTING-3/8ORING-MALEX1/4BAR	049427	-	103		
ELBOW-3/8ORING X 1/4BARB-SS	049428	2	103		
HOSE-BEVERAGE265 ID X.465	R30313	.9	000	HOSE-BEVERAGE-1/4 ID X 7/16	
FERRULE487 ID NP BRASS	052140	10	103		
LINE AWATER *C300* INLET	X64393	1	103		
CLAMP-HOSE 23/32-STEPLESS EA	053957	3	000		
FERRULE650 ID NP BRASS	029834	2	000		
FITTING-3/8MFLX3/8BARB BULKHD	052806	1	103		

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
HOSE-BEVERAGE375 ID X.635	R30333	.9	000		
REGULATOR-WATER-30 PSI FIXED	064388	1	103		
TEE-3/8 BARBX1/4MFLX3/8BARB	038582	1	103		
LINE-OUTLET-FC/SMP VLV-L-SS	056611	1	103		
LINE-OUTLET-FC/SMP VLV-R-SS	056612	1	103		
LINE-MIX *C300* LEFT-SS	056613	1	103		
LINE-MIX *C300* RIGHT-SS	056614	1	103		
LINE-SYRUP *C300* SS-LEFT	026609	1	103		
LINE-SYRUP *C300* SS-RIGHT	056610	1	103		
LUBRICANT-TAYLOR HI PERF-4 OZ	048232	1	000	X65952-27	
MAN-OPER C300	055072-M	1	000		
MOTOR-1/4 HP W/OUT BASE	014477-27B	1	212	S/N K7084784 & UP	196
208-230V 60HZ 1PH / 60HZ 3PH					
+BASE-MOTOR *C300* FRONT	065681	1	103		
MOTOR-1/3 HP 870 RPM	054631-27	1	212	S/N K7070000 & PRIOR USE X65952-27 KIT TO UPGRADE	196
208-230V 60HZ 1PH & 208-230 60HZ 3PH					
CAPACITOR-START 108-130UF/250V	033043	1	103		
CAPACITOR-RUN 10UF/370V	057176	1	103		
MOTOR-FAN W/4 BLADE 185W	500302-27	1	103	208-230V 60HZ 1PH	
+CAPACITOR-RUN-4.0 UF/400V	500311	1	103		
+GUARD-FAN	500304	1	103		
PAIL-MIX 10 QT.	013163	1	000		
PAN-DRIP *355*	043612	1	103	REAR BEARING	
PANEL-FRONT-LOWER *C300*	054670	1	103		
PANEL-FRONT-SHELL *C300*	054668	1	103		
PANEL-FRONT-UPPER *C300*	054669	1	103		
PANEL-REAR *C300*	054672	1	103		
PANEL-SIDE *C300* LEFT	X54676-SER	1	103		
PANEL-SIDE *C300* RIGHT	054671	1	103		
PCB ABROWN OUT PROTECT-SLUSH	X47299-SER	1	212		
PCB ACONTROL *C300* UVC2	X56020-SER	1	212		
CHIP-SOFTWARE *300* UVC2	X40818	1	103		
PCB AUVC2	X51169-SER	1	212		

DESCRIPTION	PART	QTY.	WARR.	REMARKS	PARTS
	NUMBER		CLASS		UPDATE
CHIP-SOFTWARE UVC2 CHIP-SEL	X40873	1	103		
CHIP-SOFTWARE UVC2 DISPLAY	X40872	1	103		
CHIP-SOFTWARE UVC2 U10 ENGLISH	X40875	_	103		
CHIP-SOFTWARE UVC2 U11	X40876	-	103		
IC-PARALLEL PORT CHIP	040176-006	-	103		
PCB AINTERFACE-SLUSH W/NTB	X45622-SER	_	212		
PREVENTER-BACKFLOW	064696	2	103	LINE APUMP DISCH W/BF PREV	
PROBE ATHERMISTOR *345-6*	X45708	_	103		
PROBE-THERMISTOR-BARREL-2% TOL	038061-BLK	2	103		
PULLEY-10J79PD-1/2BOR	065695	_	103	S/N J7084784 & UP	
PULLEY-10J- 8.5PD-5/8BORE/GEAR	054549	1	103	(RIGHT SHELL)	
PULLEY-GEARBELT-2.865PDX.627ID	052804	_	103		
PULLEY-IDLER 3.00PD X 1.49"	054826	1	103		
+BOLT-IDLER PULLEY *358*	046039	1	103		
PUMP-GAS OPERATED-WATER BOOST	064363	-	103	K6050000 & UP - REPLACES 055526	
REGULATOR ACO2 *C300* NP	X56841	1	103		
REGULATOR-CO2 TANK-DOUBLE	051840	_	103		
REGULATOR-WATER-30 PSI FIXED	064388	1	103	LINE WATER INLET	
RELAY-3 POLE-20A-208/240 50/60	012725-33	1	103		
SANITIZER KAY-5 125 PACKETS	041082	1	000		
SENSOR AEVC-SLUSH-15" *C302*	X59648M2	2	103	S/N K5086497 - REPLACES X44951	
SENSOR AEVC-SLUSH-6" *345-6*	X44951	7	103		
SHAFT-BEATER	036412	2	103		
+O-RING-7/8 OD X .139W	025307	2	000	BEATER SHAFT	
+SEAL-DRIVE SHAFT	032560	7	000		
SHELF-DRIP TRAY *C300*	057938	_	103	S/N K3013295 & UP	
SHELL AINSULATED *C300* L-NP	X56809-SER	1	512		
+NUT-STUD *345-346-349-355*	043666	4	103		
+STUD-NOSE CONE-5/16-18X5/16-18	020445	4	103	REPLACES 029880	
+WASHER-FREEZER STUD *348-350	036265	7	000		
SHELL AINSULATED *C300*R-NP	X56813-SER	1	512		
+NUT-STUD *345-346-349-355*	043666	4	103	REPLACES 029880	
+STUD-NOSE CONE-5/16-18X5/16-18	020445	4	103		

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
+WASHER-FREEZER STUD *348-350	036265	4	000		
SHIELD-SPLASH *C300*	626290	1	103	S/N K3013295 & UP	
SHROUD ACONDENSER *C300*	X54662	1	103		
STRAINER-CONE MESH-1/4 ODF	062298	2	000	DEFROST LINE	
SWITCH-MEMBRANE-5 POSITION-20"	044521	1	103		
SWITCH-MEMBRANE-5 POSITION-23"	053138	1	103		
SWITCH-PRESSURE 440 PSI-SOLDER	048230	-	103		
SWITCH-PRESSURE-SYRUP-15PSI CO	049706	2	103		
SWITCH-PRESSURE-C02-AU CONTACT	059225	-	103		
SWITCH-PRESSURE-H20-AU CONTACT	059226	-	103		
SWITCH-ROCKER SPST OFF-ON	078418	1	103		
TANK AMIX-MOLD CAP-NON PRESS	X64690	2	103	S/N K7045170 & UP - REPLACES X56806	
CAP-TANK-MIX-BOTTOM	056820	1	103		
O-RING-3.875 OD X .139W	055388	1	000		
SCREW-10X1/2 UNSLTD HWH	055389	3	000		
CLIP-RETAINER-TUBE-MIX *C300	062289	1	103		
CAP-TANK-MIX-TOP-NP	056808	1	103		
O-RING-3.875 OD X .139W	055388	1	000		
SCREW-10X1/2 UNSLTD HWH	055389	3	000		
FITTING-1/8MPTX1/2BARB PLAST	064251	1	000		
ELBOW-3/8 MOR X 1/8 FNPT-SS	063957	1	NNN		
CLIP-RETAINER-LINE-SYRUP-LG	056541	2	000		
SCREW-6X3/8 PHIL. PAN HEAD	056619	2	000		
SWITCH-FLOAT *C300* TANK-MIX	055539	1	103		
O-RING563 OD X .070W-#013	043758	1	000		
TANK-MIX-SS-4"=MOLDED CAPS	063840	1	103		
TUBE-FEED-MIX	056807-8	1	103		
TRANSCONT40VA 120/200/240V	045754	1	103		
TRAY-DRIP *C300*	057738	~	103	S/N K3013295 & UP - 039381 10-32x3/8 Hex Screws	
TUBE-MIX *C300* NP	056821	2	000	SHL TO TANK	
TUBE-VINYL 1/2ID X 11/16 OD	020944-36	_	000	SANITIZE - R30335	
TUBE-VINYL 1/4ID X 1/16WALL	020941-24	2	000	SAMPLE VALVE R30312	
VALVE-ACCESS-1/4MFL X 3/80DSDR	053565	2	103	LINE ACCESS	

DESCRIPTION	PART	QTY.	WARR.	REMARKS	PARTS
	NUMBER		CLASS		UPDATE
VALVE-EXP-AUTO-1/4S X1/4 FPT	046365	2	103		
+BOOT-EXPANSION VALVE	020900	2	000		
VALVE-SOLENOID 208/240 V-	028824-27	1	103		
VALVE-SOL 1/80RF 1/4INX3/80UT	053511-27	2	103	DEFROST LINE	
VALVE-SOL-7/64 ORFX3/8SI-1/4	062087-27	2	103	LIQUID LINE REPLACES 043449-27	
VALVE ASAMPLE *C300* ORING	X56570	1	103	BRIX SAMPLING	
RETAINER-VALVE *C300* SAMPLE	056572	1	000		
TUBE-VINYL 1/4ID X 1/16WALL	020941-18	2	000	USE R30312 TUBE-VINYL 1/4 ID X 3/8 OD	
SCREW-10X3/8 SLOTTED HEX WSH	015582	1	000		
VALVE-SAMPLING-3 WAY-ORING F	056571	2	103		
WATER COOLED					
BLOWER-100 CFM	012796-27	1	103		
BRACKET-CONDENSER *C300*W	056357	1	NNN		
BRACKET-CONDENSER *C300*W	056358	l	NNN		
BRACKET-VALVE-ACCESS *C30	056360	1	NNN		
BRACKET-VALVE-WATER *C300*	056359	1	NNN		
CLAMP-HOSE-ADJ 7/16 X 25/32	010031	9	000		
CONDENSER-WC-COAX	047540	1	103		
COUPLING-5/8FS X 1/2FS	015220	7	103		
GUARD-BLOWER	022505	1	103		
HOOD *C300*WC*	054677-WC	1	103		
HOSE-RUBBER 1/2 ID X 7/8 OD	R50200	,6	000		
PANEL-REAR-WC *C300*	054672-WC	1	103		
PANEL-SIDE-LEFT *C300*	054676-WC	1	103		
PANEL-SIDE-RIGHT *C300*	054671-WC	1	103		
SWITCH-PRESSURE 350 PSI-SOLD	048231	1	103		
VALVE-SOLENOID 208/240 V-	028824-27	2	103		
VALVE-WATER 3/8 REG/HEAD PRESS	046686	1	103		

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
50HZ (380-415V 50HZ 3N)					
COIL-SOLENOID-FLOW CONTROL	062013-40	2			
BLOCK-TERMINAL 4P L1,L2,L3,N	039424	1	103		
BLOCK-TERMINAL-7 POLE GREEN	024156	-	103		
COMPRESSOR CS18K6E-TFD-238	052397-58	1	512		
DIAGRAM-WIRING *C300* NP	056828-58	1	000		
DISPLAY-LIGHTED *C300* P.0.P.	054683-40	_	103		
HARNESS-WIRE *C300* PWR/COMP	056334-58	1	103		
HARNESS-WIRE *C300* HI VOLT-NP	056827-40	1	103		
MOTOR-1/4 HP W/OUT BASE	014477-40B	1	212	S/N J7084784 & UP	
+BASE-MOTOR *C300* FRONT	065681		103		
MOTOR-1/3 HP 725 RPM	054631-40	1	212	S/N J7070000 & PRIOR USE X65952-40 KIT TO UPGRADE C300*50HZ	
CAPACITOR-START 108-130UF/250V	033043	1	103		
CAPACITOR-RUN 10UF/370V	057176	1	103		
PULLEY-10J875PD-1/2BORE	025569	1	103		
PULLEY-10J-8.5PD-5/8BORE/GEAR	054549	1	103		
DVD-OPS TRAIN VIDEO*C300/C302*	064416-DVD	1	000		Ħ

